

Remarks

Applicants have canceled claims 1-10, 13-18, and 21-23 without prejudice or disclaimer. Applicants reserve the right to pursue the subject matter encompassed by all canceled claims in one or more divisional or continuation applications. Claims 25-56 are hereby added. No new matter has been added.

Upon entry of the present amendment, claims 11, 12, 19, 20 and 24-56 will be pending.

Support for New Claims 25-56

Claims 1-10, 13-18, and 21-23 have been canceled without prejudice or disclaimer in favor of new claims in order to claim additional embodiments of the subject matter of the provisionally-elected group (*e.g.*, Gene No. 29, *see* pages 82-85 of the specification). New claims 25-56 find support in the claims as originally filed and throughout the specification. Specifically, support for new claims 25, and 31 can be found, for example, at page 82, line 5 to page 85, line 4; at Table 1, page 162, row 8, as indicated as "Gene No. 29;" and at page 167, line 1 to page 169, line 12. Support for new claims 26 and 32 can be found, for example, at page 251, line 31 to page 252, line 6. Support for new claims 27, and 33 can be found, for example, at page 189, line 28 to page 191, line 16; Example 5, page 415, line 31 to page 418, line 2; Example 7, page 419, line 22 to page 422, line 6; and Example 8, page 422, line 7 to page 424, line 19. Support for new claims 28, 34, 39, 44, 49, and 54 can be found, for example, at page 248, line 4 to page 249, line 30; and at Example 9, page 424, line 21 to page 426, line 3. Support for new claims 29, 35, 40, 45, 50, and 55 can be found, for example, at page 356, lines 3-7; and at Example 23, page 449, line 19 to page 460, line 5. Support for new claims 30, 36, 41, 46, 51, and 56 can be found, for example, at page 249, line 32 to page 262, line 4; at page 362, lines 20-32, line 6; and at Examples 5-8, page 415, line 31 to page 424, line 19. Support for new claims 37, 38, 42, and 43 can be found, for example, at page 191, line 18 to page 199, line 21; and at page 358, line 20 to page 359, line 31. Support for new claims 47, 48, 52, and 53 can be found, for example, at page 199, line 23 to page 203, line 10; and at page 358, line 20 to page 359, line 31.

Accordingly, no new matter has been added by way of amendment, and entry of the above amendment is therefore respectfully solicited.

Applicants point out that the translation product of this gene shares sequence homology with the superfamily of protocadherin proteins (*e.g.*, See Genbank Acc. No. gi|1161230 and gi|2995719 (AF052685), and Geneseq Acc. No. R86865). Protocadherins are glycosylated integral membrane proteins, related to Cadherins, which are involved in cell-cell adhesion. As shown in Exhibit A, a polypeptide encoded by Gene NO: 29 exhibits conserved Cadherin Repeat Domains, similar to the ones exhibited by, for example, the Human Protocadherin Beta 9. Furthermore, it is well known in the art that Cadherins are associated with the metastasis of gynecological cancer. *See, i.e.*, Auersperg *et al.* (1999), Proc. Nat'l Acad. Sci. USA 96(11):6249-6254, and Fujimoto *et al.* (1997) Cancer Letters 115(2):207-212, listed as references L and G, respectively, in the attached SB/08.

The Restriction Requirement

Pursuant to Paper No. 3, mailed April 8, 2003, the Examiner has required an election under 35 U.S.C. § 121 of one of Groups I-X. The Examiner contends that the inventions are distinct each from the other.

In addition, the Examiner contends that each of the Groups as cast by the Examiner reads upon unrelated, patentably distinct sequences and creates an undue search burden. Thus, citing MPEP § 803.04, the Examiner has imposed a further restriction to a single disclosed sequence.

In order to be fully responsive, Applicants provisionally elect, *with traverse*, the invention of Group II, represented by original claims 11, 12, and 16, and new claims 25-56, drawn to polypeptides of SEQ ID NO: 125 and clone ID HOFND85, for further prosecution. Applicants reserve the right to file one or more divisional applications directed to non-elected inventions should the restriction requirement be made final. Applicants point out that claims 1-10, 13-18, and 21-23 have been canceled without prejudice or disclaimer, and that new claims 25-56 are directed to subject matter falling within the ambit of Group II as cast by the Examiner.

With respect to the Examiner's division of the invention into ten groups and the reasons stated therefore, Applicants respectfully disagree and traverse. Even assuming, *arguendo*, that Groups I-X represented distinct and independent inventions, restriction remains improper unless it can be shown that the search and examination of all groups would entail a "serious burden." *See* M.P.E.P. § 803. In the present situation, no such showing has been made. Although the Examiner has argued that Groups I-X are separately classified, Applicants nonetheless submit that a search of the claims of any of the groups would also provide useful information for the

claims of the other groups. For example, Applicants submit that a search of polynucleotide claims of the invention would provide useful information for examining claims directed to both polynucleotides and the polypeptides encoded by these polynucleotides. In certain claims this is especially true because the polynucleotide sequence of these claims is defined in part by the polypeptide that the polynucleotide sequence encodes. Further, Applicants point out that, in many if not most publications, where a published nucleotide sequence is an open reading frame, the authors also include, as a matter of routine, the deduced amino acid sequence of the encoded polypeptide.

Similarly, a search of the polypeptide claims of the invention would clearly provide useful information for the examination of claims directed to antibodies either produced in response to or having affinity for the subject polypeptides. This is because antibodies are frequently defined by the antigens that they are produced in response to and the epitopes to which they bind. Moreover, in many publications where an antibody is described, the antigen that it was produced in response to is also described.

Further, searches of publications directed to polynucleotides and the use of those polynucleotides would clearly be overlapping. This is so because in many, if not most, publications which describe polynucleotides, these molecules are described by their function, characterization and/or expression profile. Thus, a search of polynucleotide claims would also provide the Examiner with art directed to the manner in which the claimed polynucleotides could be used in diagnostic and therapeutic indications.

Similarly, searches of publications directed to polypeptides and the use of those polypeptides would clearly be overlapping. This is so because in many, if not most, publications which describe polypeptides, these molecules are described by their function. Thus, a search of polypeptide claims would also provide the Examiner with art directed to the manner in which the claimed polypeptides could be used to treat disease states.

In view of the above, Applicants submit that the searches for polynucleotides, polypeptides, and antibodies; as well as methods of diagnosing, preventing and treating disease states using the nucleic acids and proteins of the subject invention; and methods of identifying a binding partner to a polypeptide of the subject invention; and methods of identifying an activity in a biological assay of the subject invention; and the translational products produced by the methods of identifying an activity in a biological assay wherein said translational products have said activity would clearly be overlapping.

Accordingly, in view of M.P.E.P. § 803, the claims of all of Groups I-X should be searched and examined together in the present application. Applicants therefore respectfully request that the restriction requirement under 35 U.S.C. § 121 be reconsidered and withdrawn.

Moreover, should the Restriction Requirement be made final, Applicants respectfully request that upon indication of allowable subject matter, the Examiner rejoin the claims of Groups II, VI, VII, and X.

Applicants retain the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

Conclusion

Entry of the above amendment is respectfully solicited. In view of the foregoing remarks, Applicants believe that this application is now in condition for allowance, and an early notice to that effect is urged. The Examiner is invited to call the undersigned at the phone number provided below if any further action by Applicant would expedite the examination of this application.

Finally, if there are any fees due in connection with the filing of this paper, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136, such an extension is requested and the appropriate fee should also be charged to our Deposit Account.

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Respectfully submitted,

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